

Utah Wireless Integrated Network (UWIN)

MINUTES

December 3, 2004

10:10 a.m.

State Office Building, Room 1112

**Governing Board
Attending:**

Camille Anthony, Executive Director DAS
Lt. Colonel Bart Berry, National Guard
Carlos Braceras, Deputy Director Department of Transportation
Dave Fletcher, Information Technology Services
Randy Hughes, CIO Office (for Val Oveson)
Lloyd Johnson, Information Services Director, Department of Natural Resources
Ed McConkie, Executive Director Criminal & Juvenile Justice
Christine Mitchell, Deputy Director Department of Corrections
Mike Petersen, Executive Director Utah Education Network
Nanette Rolfe, Director Emergency Services/Department of Public Safety
Val Shupe, President Utah Chiefs of Police Association

**Staff/Visitors
Attending:**

Phil Bates, Department of Public Safety
Doug Chandler, Information Technology Services
Tim Cornia, Director, L.E., Department of Public Safety
Ken Crowley, CIO Salt Lake City
Jeff Dial, Director St. George Policy Department Communications
Mike Fowlks, Captain Department of Wildlife Resources
Carol Groustra, Director Department of Safety Communications Bureau
Brett Haycock, Captain Weber County Sheriff's Office
Jake Hunt, Utah Communications Agency Network
Floyd Ritter, Information Technology Services
Ed Spann, Department of Natural Resources
Steve Whittaker, Senior Technical Consultant, Salt Lake City IMS

AGENDA

**1. Welcome
Camille Anthony**

**2. Exercise Report
Lt. Col. Bart D. Berry**

- Power Point presentation on an exercise to test the system's interoperability, organized and carried out at the three sites of Brigham Young University campus working with the emergency service, Duchene City, and a "terrorist attack" on the UDOT Trax in Sandy City. All went "like magic" per the General's comment for communication facilities and equipment coordinating with individuals and groups, which included many soldiers recently returned from Iraq.
 - The 800 MHz was the backbone to the EOC. This exercise used voice testing - no data testing. BYU campus emergency services has the VHF capability of to tie into Provo City's law enforcement; other university and educational facilities would also have the same capability through their local law enforcement.
 - The only thing that may have been considered a 'hiccup' was getting some of the operators knowing how to go to the event channels on the radios, which could be corrected with training.
 - Training component is critical. The Department of Public Service has hired a person that is developing the curriculum for that training with local law enforcement. Perhaps more information on that in next meeting.

- As we worked through the development of the exercise with the purpose of the interoperability training with local law enforcement, it was anticipated there would be a large volume of people. It actually did include 500 Boy Scouts at a Jamboree. The exercise is open for observation; there was many of the media present filming.

3. Link between UWIN & E911 Dave Fletcher & Phil Bates

Handout, Page 2, has a registry for PSAPs in Utah. House Bill 36 created a new 911 committee tasked with two priorities:

1. Obtain enhanced service where we would have the ability when with a call to 911 from a LAN line connection to display caller ID, the responsible agency, and subscriber information when received at the dispatch center.
 2. Going into a wireless environment where we can see the location of a wireless phone call when it comes into PSAP.
- Meetings are open to the public, and you can get on the email distribution list. There is a link on the UWIN website.
 - Funding source available to carry out the mission.
 - Collecting databases on each one of the PSAPS to identify technology for 911 and the level of service, and phone extensions provided.
 - Could collect relevant UWIN information to add to this same database. If you have suggestions, email Phil directly to coordinate and incorporate that effort.

4. UWIN "Year Two" Action Items Dave Fletcher

Strategic plan recently updated; draft is on the UWIN website dated November 8th. Please review and provide any input of suggestions for this next year.

- The following fourteen action items have been worked on over the past year.
 1. Install Omni Link connecting all the VHF and 800 MHz in the state.
 - Major progress from everyone in accomplishing this. SAFECOM project in Washington, D.C., was excited about what Utah was doing.
 2. Connect National Guard to the statewide voice network
 3. Smart phone interface
 - Need to develop standards as to how it's used
 4. Secure enterprise solution and standards for 802.11
 - State agencies will be using that during the Legislative session.
 5. Complete the state plan for 700 MHz and 4.9 GHz.
 - Work with regional planning committee
 - Utah first state to submit 4.9 GHz; FCC delayed because only two states have submitted a plan for 700 MHz since then. Draft available on UWIN site; submit in earlier 2005.
 - 700 MHz will be the key to expanding bandwidth available on the mobile data network.
 - Jake Hunt encouraged everyone review this plan. It is the future spectrum within five years.
 - Doug Chandler: Preallocation frequencies for counties; preassigned numbers for agencies should be requested now before document submitted to FCC. Once approved by FCC it will be law.
 6. Develop mechanism to insure all communications projects in the state are coordinated with UWIN.
 - Technology Steering meeting throughout the state
 - More education
 7. Expand 800 MHz voice service into rural Utah, including the I15 corridor south of Utah County
 - This is moving forward.
 8. Complete the UWIN website to help insure statewide communications

- This is being kept updated regularly.
- 9. Meet with the Utah Association of Counties and Utah League of Cities and Town, Outreach and Education
 - Can improve in that area
 - Scheduled for the next meeting to get the word out and share information.
- 10. Maps of all hotspots in a standardized identification
 - Still need some work done and then get it out on the web.
- 11. Develop a wireless information data portal for PDAs
 - Not completed yet; has been assigned.
- 12. Define how Utah will use wireless spectrum in services, including 4.9 GHz to support critical infrastructure protection.
 - (committee headed by Stan Locker through Homeland Security)
 - Some work to do on this.
- 13. Connect UDOT facilities in Utah to the state plan.
 - Almost done.
- 14. Develop plans for wireless local area networks for incident management and command.
 - Still some things to do.

Ideas to get you thinking for next year:

1. FCC approved first **SDR (software defined radio device)** a couple of weeks ago. GSM base station was approved. Prototype hand-held device was not among approvals, but device in which most interested. Built on an IPAC using the ability to communicate on any frequency up to 1, 800, 700 450 100 GHz. Prototype only covers up to 450 GHz. Still a ways from that. Continuing to watch developments and test when available.
2. Begin to create **increased functionality** for wireless users, both PDA and laptop by creating a subgroup between the Utah wireless users development forum, including application developers that represent all the different interests. Develop a list of high priority, high impact location-based services for the increase in mobile users. Through voice or data control Mobile user can do anything they want to do on the network. Team and strategy for developing those applications.
3. **Grid computing**: Relevant to wireless because we could be a leader. Virginia the first state, October 14th. Global grid exchange is an open public infrastructure to bring together idle or unused computer processing power throughout the state. Several types of grids.
4. Recommend **stopping the creation of any new data center**, focus on creating the grid, and include state and local resources available to users.
5. **Inventorying** all of those resources to build the grid architecture. Make sure all key computer resources have adequate bandwidth.
6. Sponsor a **wireless application development contest** at Utah universities. BYU's business center is sponsoring contests for students to develop cutting-edge applications with a financial incentive. Something UWIN could do in order to build the application base for users and give opportunity for students to develop skills in the wireless area. Utah has the largest number of engineering and science students today per capita. Tap into this resource.
7. **Test mesh modem cards and incident command environment**. Mesh networking gives the ability to move into incidents and create ad hoc local networks. Another exercise plan with the National Guard in April. Put this into place to test.
8. Develop a plan for **expansion of the fiber network** by June 2005. Floyd involved in a group at UDOT and UEN. Target to get a plan in place supported by a broad base group like UWIN.
9. **Test VOIP applications on the mobile data network**. When the band gradually increases, number of opportunities for voice control and interface using VOIP and MDN; some of these are easy to test. Recommend testing when increasing bandwidth.
10. **PDA plan for services**
11. Develop a **service for ad hoc polling** of wireless meeting participants. This service can be very effective in different areas where laptop and PDA users can be polled and come to quick decisions with the consensus of the group. Central application could be used by mobile data users remotely and provide meaningful feedback and make meetings more effective.
12. Review and support the implementation of the **statewide GPS base station**. Draft legislation (2 pages on handout) to review and provide input. ITS, AGRC, and UDOT participating in that. Mobile applications that can benefit from enhancement of GPS in the

state. Satellite GPS network only allows you a certain degree of precision; therefore, some things cannot be done effectively as apposed to a static GPS network. Carlos has people with lot of details as they have been building that network with old CPS units as taken offline and working with cities and counties. Saves money. Could be proposed as an enterprise project.

Action: Suggest this board and staff provide ideas and approve a list of goals for 2005. Accomplishments will be more affective if we have a written agenda or list.

Q: Ed McConkie: What is the \$1.8 million

A: Buys hardware to distribute statewide; for maintenance of the system; it isn't through the Governor's budget. Legislators are very hot on this; Representative Holdaway and Walker are supporters.

Q: Recommendations the result of our committee?

A: UWIN and subcommittees

Mike Peterson, UEN

- o Security is an issue. One of the goals of this organization is to collaborate more closely. Security escalates.
- o Training: It seems to me that training has been on a department level; as we work collaboratively it increases the opportunity to view training on a much broader level. UEN has some interest in supporting training that isn't exclusively delivered by colleges, universities, and public institutions. Ways of training in, for instance, DPS, UDOT, etc.

One of the things UEN is working on is a funding proposal that would give us the very best course management system that is an online tool that is incredible. It's clearly the best plan in the country; we are in a position of having evaluated that. Very interested in structuring licenses with that so they would be available for use by state agencies, local agencies, or anyone who wanted access to UEN's tools. An enterprise training. Use this body to think about how we can do that.

Christine Mitchell, Corrections

- o Applications we would like to access were built in the 80s in the client server world; some new ways of taking the old stuff and making it so it would work better in the wireless environment. Set up a one-day "remodeling" workshop to find out what it would take to change the equipment in which we've invested too much to dump, into a wireless data process.
- o Dave Fletcher responded that that was one of the things for the development form to talk about that and any new applications.

Camille Anthony charged the group to take this back to your own people as a follow-up to approve a plan at the next meeting where we have an opportunity in doing some outreach on getting some input. What do we need to do for their officers to use this in their daily responsibilities? Put it out for public comment in the next 30 days. You be the catalyst and provide feedback directly to Dave Fletcher by email. Then it can be organized.

Christine Mitchell: goals met last year - prepare a brief of what we accomplished to make our groups aware of what has been done.

Action: Camille to have posted on the website.

5. 700 MHz Data Update Phil Bates & Doug Chandler

Base station up and running; have been testing the last couple of days with different configurations on the car for what would be operable for the antenna placement. Doug Chandler: On satellite image moved clockwise and counter clockwise and had strong levels of signal; reported never lost usable signal. Boyd Webb has done a great job on the satellite images. Lull on the project until we got the hardware a couple of weeks ago; will pick up speed now. Ordered 214 mobiles ordered and 21 base stations. 40 mobiles and 5 base stations have been received; number received will increase also up to

the proper curve. Application testing will be next. General time frame will be spring of 2005. Mountain top sites will be done (weather permitting) summer 2005. Mobile units are available. Camille suggests we put some in DNR and UDOT for them to try and anyone else who would like to. Floyd reported UDOT testing on their weather stations.

6. Omni Link Update **Phil Bates**

Vernal added on just prior to exercise with National Guard. Majority of work is updating the current UCAN consoles and sites to come on approximately February 2005. Next projects are Box Elder in January, Logan end of January and Moab after that.

7. UCAN/SLCO Update **Jake Hunt**

Merger is accomplished. Feel good about coverage and capacity of the Salt Lake County area. No significant problems. Update from Salt Lake City: making progress

8. UEN/ITS Wired Networks Discussion **Dave Fletcher & Mike Peterson**

Diagram of core network master plan. All of the redundancy plan (Power Point presentation will be posted on the UWIN website) and how we are building out wireless on top of the redundant network. Built on a geographic hub basis with redundant connections going to all key points throughout the state. The core with sonnet ring and connection to UEN. Wireless to remote locations and 802.11 plan connections.

Mike Peterson, UEN: Working on a project with dense weight technology that Qwest calls GEOMEX that expands the fiber backbone dramatically. Making one of those available between Richfield and Salt Lake City. Full gigabit of capacity as on OC48. Three Internet connections. Spring 2005 fiber connections from California through Denver, adding to the use and functionality of the network.

Long term, we recognize that it is important we have redundant paths through the state. Not available right now, but we are working with educational networks in Nevada and California as well as the national LANDA project which we hope within a two to three years to have the redundancy go through St. George to Las Vegas, to Riverside in California, Salt Lake City to Reno, into Sacramento, and into the Bay Area. This would significantly increase the network capability. NRL piece will be in place within two to three months.

Can dedicate more time to this in a future meeting if needed.

9. Interoperability Committee **Phil Bates**

Doug Chandler explained the State Interoperability Executive Committee (SIEC) suggested by the FCC was formed mainly for the purpose of a 700 MHz plan, having oversight by a wide range of agencies that had those channels to use. Subcommittee formed to do this under UWIN. Requirement was to form a committee or use an existing organization that served that capacity already. Phil said subcommittee we had didn't have the decision makers. It should rest with UWIN.

Camille Anthony: Interoperability committee would still function for purposes of advising this board, but the UWIN governing board would actually take the vote and be responsive as the body to do the guidance. Policy level people would be the group we have here.

Motion by Lloyd Johnson "Based on the authority given this group through Executive Order that we consider ourselves functioning as the SIEC for the state of Utah."

Seconded by Carlos Braceras, DOT

Vote: Unanimous in the affirmative

10. Technology Committee Update Doug Chandler
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Meetings now every other month. Times and places on the website. Narrow band migration committee had a goal to present to this committee this month of December; however, the scope has changed somewhat dramatically. Narrow band migration deals with migration of wideband VHF users, which is almost everyone in the state of Utah except UCAN users, and how we can best migrate wideband to narrow band channels. It was brought up in the committee that administrative committee would ask about costs and options involved, which were not in the original scope. The committee will go back and widen the scope before bringing it to the governance board.

Action: Technology Committee, Friday, December 10, will cover the list of Dave Fletcher's ideas for input.

Action: Notify Camille when ready, and it can put on agenda as an item.

Carlos Braceras said their people developed a cost in reference to VHF users, and it is a big number. We'd need some phase-in time for this. Good that we will talk about for appropriation issues.

Camille Anthony thanked all who participated in the presentation to the Utah Technology Commission - DPS, Jeff Dial, and the National Guard. Not sure of the UTC understanding, but they seemed positive. Legislative component is fully informed. Encourage this type of information.

Next meeting Friday, January 7th, 10:30 a.m. If you have agenda items, please email Camille.